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## ROLE OF TOTAL QUALITY MANAGEMENT TOWARDS ORGANIZATIONAL PERFORMANCE THROUGH KNOWLEDGE TRANSFER AND INNOVATION CAPABILITIES

Asim Mahboob Qureshi<sup>1</sup>, Abid Hussain Nawaz<sup>2</sup> & Nazakat Khan<sup>3</sup>

<sup>1</sup>Senior Lecturer, Centre for Foundation Studies, Middle East College, Muscat, OMAN

<sup>2</sup>Visiting Lecturer, Department of Commerce, Thal University Bhakkar, Pakistan

<sup>3</sup>Ph.D. Scholar, Department of Management Sciences, Qortaba University, D.I.Khan, Pakistan

KEYWORDS	ABSTRACT
<p>Total Quality Management, Organizational Performance, Knowledge Transfer, Innovation Capabilities</p> <p style="background-color: #006633; color: white; padding: 2px;">Article History</p> <p>Date of Submission: 12-11-2022 Date of Acceptance: 28-12-2022 Date of Publication: 31-12-2022</p>	<p>This research examines relationship between total quality management and organizational performance with the mediating effect of knowledge transfer and Innovation capabilities. This research encourages investigation of the several logical factors that characterize overall quality management. The researcher used quantitative survey research approach to conduct this research. The population of the study was consisted of 240 textile industry employees in Faisalabad, Pakistan. Results show that quality management significantly effect on organizational performance. The results indicated that knowledge transfer and Innovation Capabilities mediate the relationship between total quality management and organizational performance. This study provides foundation for specialists to customize quality management practices under various situational factors while involving the knowledge-sharing and innovation capabilities of the employees by recognizing two distinct crucial directions of QM practices. This paper mainly contributes to the study of organizational context enablers for total quality management, especially when firms are seeking to build/improve innovation capabilities to enhance organizational performance.</p> <p style="text-align: center;"> <a href="http://www.gomaluniversity.edu.pk">2022 Gomal University Journal of Research</a></p>
Corresponding Author	Asim Mahboob Qureshi: <a href="mailto:asim@mec.edu.om">asim@mec.edu.om</a>
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### INTRODUCTION

Associations from all over the world have been working over the past several years to adjust to a business environment that is rapidly altering and in which CEOs must become sophisticated in locating strategies to maintain or gain a comparative advantage (Lin, Chen, Liu, & Li, 2022). Most manufacturing companies have adopted new ways of thinking like concurrent engineering, lean production, just-in-time (JIT) strategies, total quality management (TQM), business process

re-engineering (BPR) and others to be more persuasive in how they run their businesses to survive new global challenges. Thus, the primary motivation behind these lines of thinking is the expansion of the association's remote and in-person exposition within its specific market goals (Bolatan, Golgeci, Arslan, Tatoglu, Zaim & Gozlu, 2022). The business environment has been subjected to major changes and quality improvements, which has resulted in it being one of the main tactics that every association employs in order to attain a competitive edge. In addition, since the global labour market is expanding at a steady rate, companies have to raise the quality of their products and services in order to remain them competitive with their contemporaries (Donate, Ruiz, Pablo & Peña, 2020). The product performance is studied and practiced by several quality administrations as a means of enhancing the hierarchy execution and cultivating client loyalty.

Total Quality Management (TQM) is an approach to business that is predicated on the idea that all of an organization's employees should collaborate in order to provide high-quality products and services that are tailored to requirements of clients (Modarres, 2022). Given competitive pressures caused by rising input costs, exorbitant loan fees, significant costs associated with innovative work, and high client expectations regarding the quality of goods and services, many assembling organizations continuously search for ways to improve quality while maintaining sound financial practices (Nugroho et al., 2022). According to many studies, the total quality management (TQM) method is potentially useful for fostering improvement and enhancing an organization's comparative edge. To achieve the greatest benefit, associations must understand how to use QM (Abbas & Kumari, 2021). The contingency theory's importance in operational administration has been acknowledged by scholars as QM research advances, researchers must go beyond only the supporting behaviors; instead, they must now better understand how the environment affects QM practices (Silvestro, 2001). A few researchers have developed a more sophisticated understanding of QM using contingent theory. For instance, emphasizes upon the importance of implementing quality management from a contingency theory approach. Dispel doubts about universal validity of quality management systems, in line with They suggest that contextual factors may be to blame for inconsistent performance in QM execution (Koomson, 2022).

The purpose of quality exploitation procedures is to achieve cyber control, that can be defined as "a technique in which communication loop is defined by criteria of performance, evaluating system performance, comparing that performance with standards, feeding back data about undesirable deviations in system, and adjusting the system (Alghamdi, 2018). Goal of quality exploration, on the other hand, is to improve an organization's ability to recognize and seek out innovative ideas, recognize unfamiliar, and learn more. In strictly internal field, QM practices are particularly concentrated on the social aspect of the company, on concepts like freedom and participation, and others of a more technical type, like procedure control. By collaboration, we imply the predisposition to encourage tasks as a group rather than alone. Independence refers to the group's or individual's ability to automatically accomplish tasks to a certain extent. The relationship between TQM, and authoritative execution is extensively supported in writing, but adding the impact of logical aspects on the execution and mediating this relationship through knowledge transfer and innovative capability would be a novel addition. Based on the above discussion it is critical to discuss the role of total quality management on firm performance in the context of Pakistan. Further, objective of this research is to evaluate the mediating role of

knowledge transfer and innovative capability amid total quality management and performance of organizations.

### **LITERATURE REVIEW**

TQM is process that aims to create and advance more successful and unequalled administrations by achieving coordination among administrative persons. According to quality management is a strategy for dealing with the board that consists of a "set of commonly building up standards, each of which is upheld by a bunch of practices and procedures," and has achieved discriminate validity as for various working methods for improving association's performance. The analyses reveal that QM includes growth practices that impact the firm's internal environment and its relationship to its existing situation (Azeem et al., 2021). In similar vein, it comprises exercises focused on the societal and specialist aspects of company. QM drives involvement with clients and services in the area where the firm and its current situation are connected. Interaction with suppliers and consumers refers to association's propensity to engage in lighthearted activities with consumers and to establish and maintain ongoing relationship with them (Donate et al., 2020). The demands put on organisations to provide high-quality products and services have led many enterprises to conclude that integrating overall quality management methods into manufacturing processes is necessary to maximize efficiency while maintaining product quality standards.

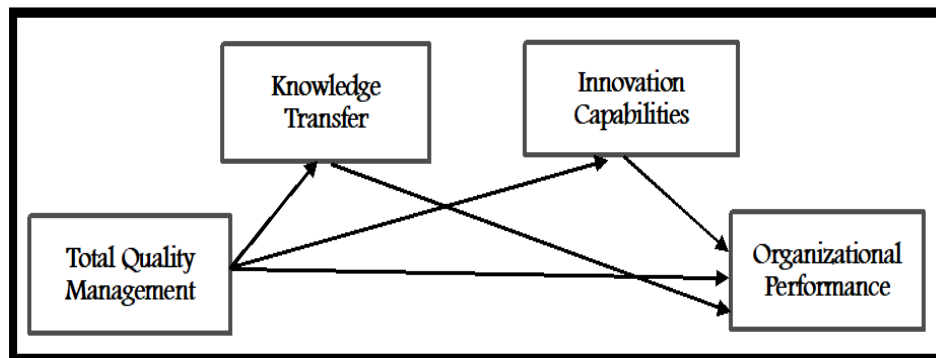
TQM is recognized as a strategy that places the customer as the primary concern, and it directly aims to provide customer with high-quality services and products by continuously improving the production processes. This is accomplished by putting the customer's needs at the forefront of business (Khalfallah et al., 2021). Another kind of research that tried to specifically identify the friction that existed between the concepts of top managers on TQM and the opinions of the intermediate level managers. This type of study was conducted in United Kingdom. According to the findings of the investigation that was carried out by Soltani and Wilkinson (2010), there are four fundamental TQM propositions. Among them are the reiteration of tasks pertaining to quality on an individual, corporate, and senior management level. The most important things that can be learned from the research that Soltani and Wilkinson carried out are the following: TQM is still considered to be a new strategy, and quality control approach is the technique that is utilized the most often to put TQM into effect. It is possible to define knowledge transfer as one authorized entity learning from another. In this connection, internal information sharing is, at its core, one-unit imparting knowledge to another inside the same organization (Faeq et al., 2021).

Variables related to the sourcing unit, the collector, the relationship between the two, and true data can be classified as variables that affect how straightforward or challenging the knowledge transfer. Knowledge transfer refers to exchange of information among workers that are connected to their respective organizations. At the individual level, knowledge sharing can take place between two employees. In this setting, they can pool their skills, knowledge, and expertise to solve different problems and aid one another in completing tasks more effectively and quickly (Sultan et al., 2021). Three main pillars of quality management are typically customer center, process center, and cooperative effort. This study examines the practices connected to the QM principles and captures QM concepts at the practice level. Various studies have used different rehearsals to quantify QM (Mukhopadhyay, 2020). Four frequently used components customer service, process management, teamwork, and training have been identified for this evaluation

based on the comprehensive writing survey. Both theory and practice can benefit from these factors. From thorough review of literature presented above, it is clear that contextual factors, quality management exploration and exploitation, have all been investigated about organizational performance.

However, knowledge transfer and employee innovation capabilities remain the variables that must be addressed to determine this relationship strength. [Lim et al. \(2022\)](#) defined knowledge sharing as the practice of conveying human knowledge about a process or technique to other persons or organization units. An ideal knowledge-based company is one in which information is shared and exchanged across functional business sectors. The willingness of workers to share their specialized expertise with others for organization's benefit is crucial. As said before, the primary purpose of this article is to uncover precise elements that promote knowledge sharing in manufacturing businesses. Interaction with suppliers and consumers refers to association's propensity to engage in lighthearted activities with consumers and to establish and maintain an ongoing relationship with them. QM drives involvement with clients and services in the area where the firm and its current situation are connected. In addition, researcher will investigate the mediating roles of knowledge sharing in TQM management. Prior research indicates the need for more studies analysing the effects of the many aspects of quality management on one another and on other factors such as innovation. Thus, researcher examine mediating effect of innovation abilities amid quality management and organizational performance ([Hudnurkar et al., 2022](#)).

Figure 1 Theoretical Background



### RESEARCH METHODOLOGY

This investigation uses a quantitative research methodology to examine relationships between observed variables. It employs many quantitative/factual systems and poses various hypotheses or queries to experimentally investigate relationships between various components. Criteria of accuracy and authenticity are significant in statistical research. Two main types of quantitative research are considered to be experiments and social surveys. Analysis of the theory is the aim of quantitative research. A sample is collection of persons from whom data is collected, whereas a population is a group of people to whom research results generally apply. Even yet, sampling is process of selecting items for testing from the general population. Testing is a crucial phase of the examination process since it affects the number of delegate tests you could extract from the community. The next step in examination process is the expert's selection of the population

from the entire population, and the final step is the drawing of tests. Data was obtained from performance managers at Faisalabad textile companies. 280 questionnaires were given out to individuals with an in-depth understanding of the technical aspects of TQM principles. The 241 returned surveys' final data have been considered for further study. The researcher used survey questioner to take the response of respondents. The questioner of all variables is adopted from reputed literature sources. The researchers analyze the data through the structural equation modeling.

**DATA ANALYSIS**

While pursuing their option of examination procedures, analysts from various fields, particularly in social sciences like Structural Equation Modeling (SEM), It second-generation multivariate data analysis technique. It provides an alternative to the covariance-based (CBSEM) model. the SEM is typically used because its components enable simultaneous assessment of the multiple parameters and their interactions. Compared to other multivariate data analysis techniques, it is more adaptable and user-friendly since it allows for the various dependent linkages between factors.

Table 1 Internal Consistency

Variable	Composite Reliability	Cronbach's Alpha
Innovation capabilities	0.941	0.933
Knowledge transfer	0.924	0.896
Quality management exploration	0.924	0.912
Quality management exploitation	0.941	0.931
Organizational performance	0.886	0.854

Outer model represents the internal consistency in two ways: the composite reliability and estimation of Cronbach’s alpha (Hair et al., 2011). It clarifies the inter-relation of items used for measuring a construct. Table 1 shows the values 0.890 to 0.936 are higher than the minimum requirement of 0.70. The estimation of reliability by Cronbach’s alpha is lower bounded. Our result in Table-2 shows all values are above than 0.70. Our results show a consistency of the construct.

Table 2 Latent Variable Correlation

	IC	KT	QM Expr	QM Ext	OP
Innovation capabilities					
Knowledge transfer	0.625				
Quality management exploration	0.769	0.684			
Quality management exploitation	0.833	0.716	0.881		
Organizational performance	0.677	0.545	0.617	0.722	1.000

Correlation analysis describes significance of the association in constructs (Sekaran and Bougie, 2010). The correlation analysis in table-6 denoted high co-relation, showing strong relationship between variables.

**Structural Model**

The entire view of the structural model results is shown in Figure 1. Path coefficients that have statistical significance between constructs can be used to assess positive/negative relationships.

Additionally, it calculates the squared multiple correlation values. In this connection, the permissible level of the variance in the dependent variable that the independent variable can explain is shown in Table 3. The path coefficient is significant if the t-statistic is more than 1.96 and the p-value is less than 0.5%. The Figure 1 shows the favorable correlations between each construct.

Table 3 Direct Relationships

	OS	SM	SD	TS	PV
IC -> p	0.256	0.271	0.090	2.839	0.005
KT -> p	0.157	0.050	0.082	1.982	0.489
QM Expr -> IC	0.158	0.159	0.063	2.514	0.012
QM Expr -> KT	0.236	0.236	0.092	2.581	0.010
QM Expr -> p	0.139	0.147	0.105	1.928	0.185
QM Ext -> IC	0.694	0.692	0.061	11.386	0.000
QM Ext -> KT	0.508	0.506	0.084	6.057	0.000
QM Ext -> p	0.591	0.597	0.120	4.918	0.000

Table-3 showed significant relationship between construct as p-value is less than 0.5 and value is more than 1.96.

Table 4 Direct Relationships

H(s)	Relationship	Statement of Hypothesis	Results
H1	IC -> p	Significant relationship amid innovation capabilities of employees and organizational performance.	Accepted (p<0.05) t=2.839
H2	KT -> p	significant relationship amid knowledge transfer and organizational performance.	Accepted (p<0.05) t=1.982
H3	QM Expr -> IC	Significant relationship amid quality management exploration & innovation capabilities.	Accepted (p<0.05) t=2.514
H4	QM Expr -> KT	Significant relationship amid quality management exploration and knowledge transfer.	Accepted (p<0.05) t=2.581
H5	QM Expr -> P	Significant relationship amid quality management exploration and organizational performance.	Accepted (p<0.05) t=1.228
H6	QM Ext -> IC	Significant relationship amid quality management exploitation and innovation capabilities.	Accepted (p<0.05) t=11.386
H7	QM Ext -> KT	Significant relationship amid quality management exploitation and knowledge sharing.	Accepted (p<0.05) t=6.057
H8	QM Ext -> P	Significant relationship amid quality management exploitation and organizational performance.	Accepted (p<0.05) t=4.918

All components have strong beneficial relationships with other factors (including independent and mediating variables), as shown in table above. A mediation test Two tail probability values (p-value) and the Sobel test were calculated. According to the sober test and p-value, following measures were taken: a represents unstandardized regression coefficients of the independent variable that predict mediator. Based on the findings of Sobel test, Table 4 provides a summary of results and acceptance/rejection of the hypothesis. It demonstrates that all hypotheses are accepted.

Table 5 Sobel Test Results

Relationship	Sobel Test Result	TTP (P-value)	Assessment
QMEX-KT-OP	3.62	0.00	Significant
QMEX-IC-OP	2.03	0.01	Significant
QMET-KT-OP	1.99	0.02	Significant
QMET-IC-OP	2.32	0.00	Significant

## DISCUSSION

Prior research yields mixed findings when studying relationship between quality management techniques and performance (Abbas & Kumari, 2021; Faeq et al., 2021). According to some academics, altering quality administration strategies can result in better execution than using standard or universal methods. In any case, academics haven't outlined how to redesign quality practices. Consequently, this study uses contingency theory as its theoretical axis to explain how relationships can change quality practices (Ong & Tan, 2022). This study experimentally investigates quality exploitation and quality exploration, two uncommon features of the quality management techniques with different goals, drawing on contingency theory. Investigation revealed that, when the knowledge transfer and the innovation skills are considered, these two components of QM have differing effects upon the organizational performance (Valeri & Baggio, 2022). All of the relationships tested in the current study were significant, so we can conclude that employee innovation and knowledge transfer skills mediate the link between contextual TQM factors and the organizational performance. Furthermore, most of the studies previously conducted verify the findings of the current research (Itoe Mote & Karadas, 2022; Turkulainen, 2022).

## CONCLUSION

This study provides a foundation for experts to customize quality management practices based on a variety of situational factors, while incorporating the knowledge-sharing and innovation abilities of employees, by identifying two distinct crucial directions of the QM practices (quality exploitation from Quality. Similarly, the prior research provides contradictory results (example: Consequently, the findings cannot be generalized to other settings, such as ensuring facilities, which are a more mature environment for this research because to their extensive history of using QM methods. In light of this, the manufacturing sector provides a solid beginning point for reviewing the board's policies on subordinate value setting. This research may be developed in further investigation. First, research might be broadened to incorporate other scenarios, like health care and service. Most studies on quality management programs consider one supply chain link. The investigation of cooperation between producers, suppliers, and customers from a holistic perspective of the supply chain should expand the field of study for the effectiveness of quality management. At what stages of the supply chain are alternative approaches to quality practices more important? Future research is anticipated to further our understanding of the subject.

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